

WHAT IS CLAIMED IS:

1. An anti-corrosion shower head used in a dry etching tool to spray a gas,
comprising:

an aluminum base; and

5 a ceramic nozzle plate embedded in the aluminum base, and the
ceramic nozzle plate having a plurality of gas holes to spray the gas.

2. The shower head according to claim 1, wherein the aluminum base is a
cross-shaped piece of aluminum.

3. The shower head according to claim 1, wherein the ceramic nozzle
10 plate is cross-shaped.

4. The shower head according to claim 1, wherein the ceramic nozzle
plate is ceramics with purity of at least 99.5 %.

5. The shower head according to claim 1, wherein the ceramic nozzle
plate is embedded at the central part of the aluminum base.

6. The shower head according to claim 1, wherein the aluminum base has a front side and a rear side, the ceramic nozzle plate is embedded in the front side of the aluminum base while the rear side of the aluminum base corresponding to the ceramic nozzle plate is hollowed.

5 7. An anti-corrosion shower head used in a dry etching tool to spray a gas, comprising:

an aluminum base; and

an engineering polymer nozzle plate embedded in the aluminum base, and the engineering polymer nozzle plate having a plurality of gas holes to
10 spray the gas.

8. The shower head according to claim 7, wherein the aluminum base is a cross-shaped piece of aluminum.

9. The shower head according to claim 7, wherein the nozzle plate made of engineering polymer is cross-shaped.

15 10. The shower head according to claim 7, wherein the nozzle plate is

made of polyimide resin.

11. The shower head according to claim 7, wherein the engineering polymer nozzle plate is embedded at the central part of the aluminum base.

12. The shower head according to claim 7, wherein the aluminum base has
5 a front side and a rear side, the engineering polymer nozzle plate is embedded in the front side of the aluminum base while the rear side of the aluminum base corresponding to the engineering polymer nozzle plate is hollowed.

13. A method for manufacturing an anti-corrosion shower head, wherein
10 the shower head has an aluminum base and a nozzle plate which the nozzle plate embedded in the aluminum base has a plurality of gas holes, the method comprising the steps of:

coating an Al_2O_3 film on the surface of the shower head by electrodepositing an oxalic acid solution.

15 14. The method according to claim 13, wherein the thickness of the Al_2O_3 film is about 25~35 μm .

15. The method according to claim 13, wherein the nozzle plate is a ceramic nozzle plate.

16. The method according to claim 15, wherein both the aluminum base and the ceramic nozzle plate are cross-shaped, and the ceramic nozzle plate
5 is embedded at the central part of the aluminum base.

17. The method according to claim 15, wherein the ceramic nozzle plate is ceramics with purity of at least 99.5 %.

18. The method according to claim 13, wherein the nozzle plate is made of engineering polymer.

10 19. The method according to claim 18, wherein both the aluminum base and the engineering polymer nozzle plate are cross-shaped, and the engineering polymer nozzle plate is embedded at the central part of the aluminum base.

20. The method according to claim 18, wherein the nozzle plate is made of
15 polyimide resin.

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